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ANNUAL REPORT

OF THE

PUBLIC TRUSTEES OF THE BOSTON ELEVATED RAILWAY

FOR THE

Year Ended December 31, 1931

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Year Ended December 31, 1931

Boston Elevated Railway, Trustees
March 8, 1932.

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(Appointed by the Governor of Massachusetts pursuant to Chapter 159 of the Special Acts of 1918)

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REPORT OF THE BOARD OF PUBLIC TRUSTEES
OF THE
BOSTON ELEVATED RAILWAY

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REPORT OF THE BOARD OF PUBLIC TRUSTEES OF THE BOSTON ELEVATED RAILWAY

THE public trustees of the Boston Elevated Railway respectfully submit their 13th annual report.

Throughout the year just ended, the efforts of the management have been concentrated on operating the railway upon the most economical basis possible consistent with the utmost degree of safety to the riding public and with the requirements of the service. Operating expenses over which the trustees have control were reduced $1,277,226 during the year. These operating expenses were lower for 1931 than for any year since 1922 and were $3,825,520 less than in 1926, which was the year of greatest passenger revenue for the railway.

Despite this reduction in operating expenses, the results of operation for the year show an excess of cost of service over receipts of $1,904,945 due to the decline in riding. This decline resulted in a decrease in gross revenue of $2,655,614 as compared to the previous year. This year's revenue represents a loss of $5,626,206 from the high point in annual revenue, namely, $35,481,313 in 1926, and is lower than for any year since 1919.

The loss in riding on this railway during 1931 was less than the average loss in riding for companies operating in the principal cities of the United States. The nationwide decline in the number of passengers carried by transportation companies is due, of course, to the severe economic depression with its consequent reduction in the number of men employed and the shortened work-week, as well as to continuing automobile competition.

The table below shows the percentage of loss in the number of revenue passengers carried by electric railways during the year 1931 as compared with 1930 in various cities:

Baltimore	14.50%	Newark	8.99%
Boston	5.23	New York	3.65
Chicago	11.13	Philadelphia	11.45
Cleveland	16.52	Pittsburgh	14.81
Detroit	20.37	St. Louis	15.14
Indianapolis	14.36	Washington	11.07

Average of 12 cities—8.43%

It is to be noticed that New York was the only city where the decline in riding was less than that in Boston.

The reduction from six and one-quarter cents to five cents in the local fare rate, effective September 1, 1930, decreased the average fare to 8.866 cents for the current year. In a time of depression such as the present, the change in the local fare rate has undoubtedly tended to maintain the level of riding and increase the usefulness of the system to the public. The elimination of transfers at the local fare rate and the shortening of some of the local fare lines has helped to prevent a further loss in revenue.

On January 1, 1932 the carpenters employed on the railway voluntarily accepted a reduction in pay of 20 cents per hour, in line with the reduction which was agreed upon by the Carpenters' District Council of Boston and Vicinity.

The trustees have suggested to the Boston Carmen's Union the desirability of a voluntary reduction of ten per cent. in wages for the year 1932. The trustees cannot require such action because the agreement now in effect runs until July 1, 1932. Thus far the employees have not accepted such a reduction.

On April 1 of this year two surface line divisions were consolidated into a single division with headquarters at Bartlett and Washington streets, Roxbury. At present the operating organization consists of two surface divisions and one rapid transit division. This consolidation was made in the interest of efficiency and economy.

Development of Bus Operation

The use of the bus as a part of the local transportation system continued to increase during 1931. The bus is a particularly valuable vehicle as a feeder to rapid transit lines. Moreover, the bus may be used to advantage in serving a district where the riding is light, either in new territory or where the riding has decreased to a point where reconstruction of track would be uneconomic. During 1931 there was added a net of more than 67 round trip bus route miles. The bus equipment of the railway ranks high. Of the 378 buses owned by the railway at the end of this year, 180 were of the modern metropolitan type, of which 44 were purchased during 1931.

Under existing legislation, the substitution of bus service for street car service and the introduction of new bus lines is a very cumbersome and time-consuming procedure.

In some instances months of delay ensue from the time a plan is initiated until it can be placed in effect. Meanwhile the riding public is deprived of facilities.

In order to operate a bus route through several cities, the present procedure requires the procurement of a license from each city and town through which the proposed route is to operate and the procurement of a certificate of public convenience and necessity from the State Department of Public Utilities, and if buses of the modern type, which exceed twenty-eight feet in length, are to be used, the approval of the entire route by the State Department of Public Works.

Examination of records of all bus route licenses discloses the fact that the average length of time from date of application to date of operation has been more than 100 days. It would seem that where lines involve more than one community complete licensing authority might well be placed with the Department of Public Utilities. In such case, one hearing, at which all communities might be heard, would take the place of many, and one community would be prevented from blocking service desired by others, if a proposed route is in the interest of the district as a whole.

SAFETY EFFORTS

The safety of the riders on the railway and of its employees has continued as one of the major considerations of the management and of the men. The work of reducing and preventing accidents has met with such conspicuous success that in 1931 the railway again won national recognition through the award of the Anthony N. Brady Memorial Medal for the best accident record of any railway in the United States and Canada for the year ending December 31, 1930. The record of the railway for safety has merited three such awards, one for 1914, another for 1928, and, the latest, for 1930. No other railway operating in a large city has won the Brady medal three times.

Perhaps there is no more significant way of expressing the railway's success in accident reduction than to state that during the three years ending December 31 last, 1,021,698,000 passengers were carried on the system and 166,300,000 miles operated without a single death from accident to passengers in a train, car or bus.

The reduction in accidents on the railway is the result of co-ordinated action on the part of the management and the employees, and follows a wide scale modernization of equipment and improvement in track construction.

The safety plan which has been put in effect, involving as it does the control of practices in trains, cars and buses and in the shops and yards, is an integral part of the functioning of the railway. Safety here is not merely a word: it is a consideration which enters actively into every phase of railway operations. As an example of how the effort to develop safety practices has been woven into the work of transportation, the close supervision of street operations may be cited. Individual operators, especially those who have had more than the average number of accidents, are studied with a view to detecting and correcting faulty operation, arising from whatever cause. Observation of car and bus operators is carried on by specially trained inspectors on the street. These inspectors are familiar with the danger spots in their respective districts. It is their task to endeavor to prevent accidents in these districts.

The health of transportation employees is closely related to safe and efficient operation. For more than 30 years all men entering the transportation service have been given a careful physical examination. Since 1928 all transportation employees 40 years of age and older have been given an annual physical examination. Rapid transit motormen are examined every year regardless of age.

The total number of all physical examinations during the past four calendar years was as follows:

1928 — 2,238
1929 — 2,516
1930 — 2,746
1931 — 2,730

As a whole, Elevated employees have been found to be in relatively good physical condition. They are interested in the examinations and as a result are taking better care of their health. This subject of physical examinations is cited to show the efforts made to safeguard the riding public.

The reduction in the total number of reported collisions of cars with cars, vehicles, or persons, whether serious or slight, is shown in the table below:

1926 — 8,725
1927 — 7,016
1928 — 5,746
1929 — 4,885
1930 — 4,116
1931 — 3,741

Comparing the first of these years with the year just ended, the total reduction has been 57 per cent., a remarkable reduction especially in view of the large increase in street traffic congestion. Despite the large reductions secured in the years prior to the one just passed, the reduction in 1931 compared to the previous year was more than nine per cent. Upon a mileage basis, the reduction in such collisions has been from 224 per million car miles in 1926 to 124 in 1931. Upon a mileage basis, the number of bus collisions has shown a very satisfactory reduction, from 295 per million bus miles in 1926 to 139 in 1931.

Accidents to employes, which have been given the same serious attention as accidents to the public, have shown a considerable reduction. Below is a table showing the reduction in the number of accidents to employees from 1926 to 1931, inclusive:

1926 — 1,465
1927 — 1,414
1928 — 1,121
1929 — 921
1930 — 852
1931 — 835

A reflection of the results of reducing accidents is to be found in the decrease in the number of derailments, delays and trolley breaks. All may be either causes or effects of accidents.

Derailments of cars in service have been reduced from 328 in 1926 to 97 in 1931. The reduction in 1931 compared to 1930 was 48, a reduction of one-third. Trolley breaks have been reduced from 217 in 1926 to 118 in 1931. Delays of 20 minutes or longer have been reduced from 845 in 1926 to 351 in 1931, a reduction of almost 60 per cent. This figure for delays includes those over which the railway has no control and those for which the railway is responsible. The reduction in 1931 compared to 1930 was from 367 to 351.

The marked reduction in accidents from 1926 to 1931 has saved human suffering and conserved resources and has contributed to the efficient operation of the railway. The past year, like its four predecessors, has shown notable progress.

Educational Program

On November 1, 1931, the railway began its tenth annual educational program with an enrollment substantially larger than that of the preceding year. This educational program is provided by the management to encourage employees to improve their ability to perform their own jobs; and to broaden their general knowledge of the railway, of the communities served and of affairs in general.

During the present season eleven classroom courses and three correspondence courses are being conducted. More than 500 employees are attending meetings regularly and as many more are gaining benefit from occasional attendance. We are also cooperating with the Edison Company and the Division of University Extension of the Massachusetts Department of Education in connection with several courses.

The outstanding course primarily for transportation employees is entitled "Maintaining the Service." It covers the duties of the supervisory force and has been attended by more than 200 men. There is also a smaller group studying traffic analysis and equipment.

At the Everett and Albany street shops are five groups studying blueprint reading, a knowledge of which is highly desirable in shop work. There is also, at Albany street, a large group receiving instruction in shop practices. In addition, a large group of shop men meet monthly to learn from experts about the latest developments in rolling-stock practices.

A course on heat-treating of metals is also being conducted at the Massachusetts Institute of Technology. Groups are also being taught the principles of the slide rule, a useful instrument to all who have calculations to make. In addition, foreman conferences are being attended by men who wish to learn more about the business of the railway.

The program provides three correspondence courses, covering the electric car, the motor bus and power. These are practical courses relating to the Boston Elevated practices and have attracted more than 900 registrants. About 500 certificates for completion of one of these courses have already been awarded.

The general manager conducts monthly "Forum" meetings, which are largely attended and are addressed by outstanding leaders in several fields.

Mention should also be made of the Boston Elevated Railway Supervisors' Association, not officially a part of the educational program, but an outgrowth of it. This strong and helpful association of about 500 men in supervisory positions, now in its fifth year, meets monthly from October to April.

A monthly bulletin, "Co-operation," is mailed to all employees. It contains up-to-date information about the railway.

The purpose of the educational program is practical and is designed to be helpful to the employee and the railway. It is administered in such a way as to benefit by the willing co-operation of leaders in the community and in the industry, as well as local educational institutions. With these institutions it does not compete; it does not duplicate their efforts.

The Boston Elevated Railway is one of a considerable number of street railways in this country which are meeting the need for adult education on the job.

ADVERTISING

Faced this year with an extraordinary decline in riding, caused chiefly by reason of the economic depression and in part the continuing competition from the private and public automobile, the management has endeavored to overcome the effects of this competition and to maintain the use of the railway system.

By 1927 the effect of the competition of the automobile upon riding on the railway began to make itself seriously felt. From the first the decline was most pronounced during the summer months and on Sundays and holidays, the times when the automobile is used to a greater extent for pleasure riding. During the summers of 1927 and 1928, the railway sought to increase riding by means of newspaper advertisements designed to present the economy and ease of reaching nearby points of historical interest and of recreational value via the "EL."

Although continuing in a measure this type of advertising, the railway, during the last three years, has laid particular stress on the advisability of using the automobile to reach stations along the rapid transit lines, then parking the automobile in a nearby garage or parking area and proceeding for the rest of the way into the centre of the city via the railway. The merchandising of such an idea is sound because of traffic delays to motorists in reaching and driving within the centre of the city, the difficulty of finding convenient parking space in the city, the danger of violating the parking regulations, the inadvisability of using valuable street space for parking purposes and the speed, safety, convenience and economy of the rapid transit service. The advertising slogan used to promote this idea is "Park Where the 'EL' Begins."

Sales advertising in various mediums has also been used this year, as in the past three years, to promote the use of the railway to reach places where special events are being held, such as football games at the Harvard Stadium and Fenway Park, and contests of one sort or another at the Boston Garden. Prior to the Christmas shopping season, newspaper advertisements pointed out the ease and convenience of reaching the shopping centres via the system. A short series of advertisements designed to publicize the advantages of using the railway system during the winter months has just been completed.

In various ways and by the expenditure of only a small amount, the management has endeavored to keep the railway system actively in the public mind as an efficient and desirable mode of transportation and has sought to point out its undoubted merits as a means of going to and from the congested parts of the city, advocating its use in the field where it presents real advantages.

Thousands of "EL" passengers use automobiles only for a part of their trip in town and use the railway lines from terminal points for the ride through the congested areas. Moreover, it is undoubtedly true that many automobile owners, although they may not be regular riders on the "EL" system, use it with some degree of frequency.

Extension of Public Operation

The legislature by Chapter 333 of the acts of 1931 extended the definite terms of public management and operation of the railway for a period of 28 years. The act required the retirement of all the preferred stocks of the company at certain fixed prices and provided funds for this purpose by the purchase by the Metropolitan Transit District of 6% bonds of the company. It reduced the dividend on the common stock from 6% to 5% from the date the act took effect.

At the time this bill was under consideration, it was apparent that owing to the business depression there would be a substantial deficit for the year ending June 30, 1931. Under the requirements of the original public control act this would have entailed an assessment upon the cities and towns in the district and an increase in fares. Section 22 of the new act provided for the suspension of these provisions for 1931 and it was provided in Section 24 that the act as a whole should not take effect unless Section 22 should be accepted by the Board of Directors before June 30.

The Board of Directors, at a meeting held May 21, 1931, accepted Section 22 and certificate of such acceptance was filed by the clerk of the company with the state secretary on May 29.

The act was also conditional upon acceptance by vote of the holders of not less than a majority in amount of the entire capital stock as well as of the holders of not less than a majority in amount of all the classes of preferred stocks combined, at a stockholders' meeting especially called for the purpose of determining whether or not the company would accept the act, such meeting to be held within sixty days after the passage of the act. It was also conditional upon the filing with the state secretary of a certificate evidencing such acceptance.

Such a meeting was duly called and held on June 30, 1931, and the act was accepted by a vote slightly in excess of 85 per cent. of each class of stock both common and preferred. Certificate evidencing the acceptance was filed by the clerk of the company with the state secretary on July 1, 1931.

July 1, 1931, accordingly, is the date on which Chapter 333 of the Acts of 1931 took effect. On that date under the terms of the act dividends upon the preferred stocks ceased and from and after that date the dividend on the common stock was reduced from 6% to 5%.

On July 2, notice was given to each and every holder of each class of preferred stock by registered mail and by publication as required by the act.

The total amount of money required to retire the preferred stocks under the terms of the bill, exclusive of accrued dividends which had been included in the cost of service of the preceding trustee year and interest at the rate of 5% on the principal sums payable to the preferred stockholders from July 1 to the date fixed for retirement of their stock, was $23,430,917.

On July 1 the trustees, proceeding under the terms of the act, authorized the issuance of $21,000,000 face value of 6% bonds of the company and requested the trustees of the Metropolitan Transit District to purchase the same.

The trustees of the Metropolitan Transit District after careful consideration determined that, inasmuch as the Commissioner of Corporations and Taxation had ruled that bonds of the district would be in effect taxable if held by savings banks although made generally exempt from all taxation levied under authority of the state, it was inadvisable to issue long-term bonds until there was an opportunity for the legislature to remove this inconsistency from the district act. The trustees of the district therefore determined temporarily to issue short-term notes of the district and in pursuance of that policy requested bids for 8-months' notes which were opened on August 10, 1931. These notes were issued dated August 14, 1931, payable April 14, 1932, bearing interest at the rate of 2¾% per annum. Owing to the favorable condition of the money market at that time, they were able to sell these notes with that low rate of interest at par plus a premium payment to the district of $2,500. The notes were delivered on August 14 to the bankers purchasing them and the district received the purchase price. The company thereupon delivered to the district its bond for $21,000,000 payable August 14, 1971, bearing interest at the rate of 6% per annum payable semi-annually on the fourteenth days of February and August in each year.

On the same day, immediately after this transaction was completed, the board of trustees met and fixed August 18, 1931 as the date upon which stockholders should present their stock certificates for surrender and cancellation as provided in the act and notice to each holder of each class of preferred stock of this fact was mailed on the same day and was published in several issues of leading newspapers.

Stock was presented for surrender so promptly that $2,000,000 additional bonds were sold on September 14, 1931, the district being still able to sell its short-term notes maturing on April 14, on the same interest basis of 2¾%.

On October 22 the trustees of the district were requested to purchase the further amount of $430,917 bonds.

At the present time all but about 1500 shares of a total of 225,283½ shares of the preferred stocks have been redeemed and cancelled.

The act also provided (Section 23) that when all the second preferred stock had been retired, the special trust fund created by St. 1911, Ch. 740 to provide for the retirement of this stock should be used to the extent necessary to repay to the Commonwealth the balance of the amounts which had been assessed upon cities and towns served on account of the 1919 deficit in operation.

When the $21,000,000 payment for bonds was received from the district on August 14, the total amount required to retire all the "assenting" second preferred stock under the terms of the act was specially deposited with the Old Colony Trust Company for the retirement of that stock. In the opinion of counsel the second preferred stock was to be considered as retired within the meaning of the act, at the time when this deposit was made.

On August 19, check for $1,409,253.35 payable to the Commonwealth was delivered to the state treasurer and this amount has since been distributed to the various cities and towns. This payment included not only the balance of the amount paid to the company but all interest and other charges which had been assessed upon the cities and towns on account of operation under the public control act. It may be of interest to record that the bonds sold from this special trust fund to provide for this payment showed a net profit above cost amounting to $42,340.85.

For constitutional reasons the act gave to any holder of preferred stocks who did not vote in favor of acceptance of the act the right to have his stock valued in court proceedings provided he presented his stock to be stamped "non-assenting" within six months after the act took effect. The period of limitation expired on January 2, 1932. No stock was presented for stamping and consequently all stockholders may now be considered as assenting and bound to accept the terms set forth in the act.

Unemployment Relief

More than 91 per cent. of the officials and employees of the railway voluntarily agreed to contribute one per cent. of their earnings for eight weeks ending January 22, 1932 to a fund for the relief of laid off employees.

The fund is being administered by a committee of five consisting of: General Charles H. Cole, trustee; Edward Dana, executive vice president and general manager; John H. Moran, general auditor; John J. Keyes, representing the rapid transit lines; and Edward H. Moore, representing the surface lines.

The contributions to this fund will amount to more than $21,000. Up to December 31, there had been distributed the sum of $3,825 to 177 employees. Men with families were given especial consideration and varying sums were given according to the number of dependent children.

Stabilization of Employment

Efforts are made to preserve regularity of employment upon the railway in so far as is consistent with efficient and economical operations. It is interesting to note the situation with regard to the stabilization of employment during the year 1931 as compared, for instance, with 1920.

In 1920 the high number on the weekly payroll for any one week in the year was 10,055 employees, the low 8,903, and the average for the year was 9,729. The fluctuation from high to low, therefore, was 1,152, or 11.4%.

In 1931 the high was 7,770, the low 7,542, and the average for the year was 7,654, or a fluctuation from high to low of 228, or 2.9%.

Pensions

The pension plan has been in effect on the railway since February 1, 1920. During 1931 the number of employees on the pension roll increased from 497 to 515 and the total payments for the year increased from $274,313 to $302,752. The average pension for 1931 was $48.70 per month.

Because of the financial situation the trustees decided that no pensions should be granted to employees who have served less than twenty years and they reduced the maximum pension payment to $960 per year.

Under the present pension plan all employees of the railway engaged in any capacity are eligible to a pension in accordance with the following classifications:

Class A. Employees whose age is 65 or more (women, 60 or more) and whose term of employment has been 20 years or more.

Class B. Employees whose age is 60 to 64 years (women, 55 to 59) and whose term of employment has been 25 years or more.

Class C. Employees whose age is less than 60 (women, less than 55), and whose term of employment has been 30 years or more.

Under the plan the annual amount of the pension equals one per cent. of the average yearly earnings for the ten years prior to retirement, times the number of years continuously employed, with a maximum of $960 and a minimum of $375 per year.

Employment of Citizens

The policy of the board of public trustees is to engage only citizens for permanent employment.

This policy has been established notwithstanding an opinion of the Attorney General rendered in 1925 that the statutory provisions requiring preference to citizens in the public service are not applicable to the railway.

That the policy of the trustees is being carried out is attested by the fact that of the 7,588 employees actually working for the railway on December 31, 1931, the great majority, or 7,281, are citizens and only 26 have not on file applications for naturalization. Most of these 26 employees have taken the initial step toward filing applications for first papers or are endeavoring to acquire sufficient knowledge to pass the educational requirements for citizenship. All but four of these 26 employees were engaged prior to 1920.

Power Development

Following studies by consulting engineers and after careful consideration of all means of meeting the present and future power requirements of the railway, the board of trustees authorized the expenditure of $2,100,000 to carry out the following development of the power generating and distribution system.

This development provided for the installation in Lincoln power station of a new 35,000 K.W. surface condensing type turbo-generator; of four modern type high pressure boilers of sufficient capacity to operate the new turbo unit at full load; of the necessary mechanical and electrical auxiliary equipment; for the re-arrangement of the 25,000 K.W. turbo-generator already installed at this location for operation at the higher steam pressure to be provided by the new boilers; for the construction and equipping of an additional automatically operated and controlled converting substation of 6,000 K.W. capacity in the vicinity of the North Station and for necessary A. C. transmission and D. C. distribution cables.

With the completion of this power development program, direct current generation of power by the railway will be entirely abandoned and the Central and Charlestown power stations discontinued. The power system will then consist of two alternating current generating power stations with a total rated capacity of 180,000 K.W. A.C. (of which 120,000 K.W. will be installed in South Boston power station and 60,000 K.W. in Lincoln power station), 12 manual and eight automatically operated substations for converting the 13,200 volt alternating current as generated to 600 volt direct current for car operation.

The installation of the new equipment will provide adequate generating capacity for the maximum peak hour to be expected for several years unless some unusual development of rapid transit facilities is undertaken, or the railway's service is extended to territory other than that now served.

At the end of the year all phases of the new construction work were well advanced. The new turbo-generator and two of the new boilers will be in service shortly.

The work was commenced on June 11, 1931, and the number of men employed has varied from 73 in June to 295 in December.

MULTIPLE UNIT DOOR OPERATION

After careful study of the system of door operation on rapid transit trains in New York, Brooklyn and Philadelphia, the trustees authorized the installation of similar equipment on trains operated in the East Boston tunnel and also on the Cambridge subway-Dorchester rapid transit line. With this apparatus all doors of a four-car train are being operated by one guard. The installation is in line with the effort of the trustees to furnish service-at-cost by making use of devices and practices which lend themselves to good and efficient operation and are consistent with the safety of passengers. Inasmuch as all doors of a train are open for the same period of time, there is a more even distribution of passengers in the cars.

The following additional safety features have been adopted in connection with the new system of door operation:

A three-inch rubber bumper has been installed on the edge of each door and on each door post, which furnishes cushions of rubber of a total width of six inches—sufficiently flexible so that if the door is closed upon a hand, arm or foot it can be pulled out without opening the door.

A red light has been installed over the center door on either side of each car. This light, which can be seen from the guard's position, remains lighted as long as any door in a car is open, and goes out when all doors in a car are completely closed.

The pressure which operates the car doors has been reduced from a previous minimum of 70 pounds to a present *maximum* of 30 pounds. This materially lessens the possibility and seriousness of injury to persons who attempt to enter a car after the door starts to close and who may be struck by the door.

The installation of the new equipment has enabled the railway to operate additional service without increased cost. For example, in the case of the Cambridge subway in normal hours during the daytime three-car trains are being operated instead of two-car trains, without additional wage cost. This is a very real improvement in the service.

PLANT DEVELOPMENT

Bartlett Street Garage

A new bus garage, located on Washington street, near Guild street, Roxbury, was opened on January 3, 1931. It has a capacity of 56 large type buses and relieves the pressure upon the Allston, Arborway and Somerville bus garages. The cost of the building was $199,000.

The following features of the new garage may be of interest:

The floor area of over 20,000 square feet in the main building, or more than a half-acre, is free from columns and other obstructions. The roof is carried on deep, fire-proofed trusses 118 feet long.

A dropped-floor repair area permits the under parts of seven buses to be repaired at once.

A two-story side building, 40 feet by 50 feet in size, contains (on the first floor) stockroom, battery-charging equipment, oil room, foreman's office, starter's office and switch-room; (on the second floor) bus operators' lobby, receiver's office, lobby and wash-room for garage mechanics, etc.

The building is fireproof, with foundations and floors of concrete, steel frame, brick walls and a pre-cast gypsum-slab roof, three inches thick and covered with five-ply tar and gravel.

All of the details are arranged to facilitate operation and repair and to minimize fire and accident hazard.

Fellsway Garage Addition

On December 10 an addition to the Fellsway Garage was opened for use. This provided space for 26 additional buses, giving a total capacity of 78 buses. The garage addition has the standard features of the latest garages of the railway and is of fire-proof construction throughout. It has a concrete foundation and floor, steel frame and brick walls, with pre-cast concrete roof-slabs.

Bus Terminal at Everett

A new bus terminal was constructed at the Everett station of the main line elevated for the convenience of persons traveling to and from Lowell, Lawrence, Haverhill and adjacent points on the buses of the Eastern Massachusetts Street Railway. It was opened for service on October 3. It includes a waiting-room with toilet facilities, and has a shelter roof of wooden canopy type covering an area of more than 1,000 square feet. The busway, which shunts off from Broadway, was constructed by the Eastern Massachusetts Street Railway, and provides room for three buses in operating positions and one lay-over bus. The bus terminal is adjacent to the station entrance from Broadway and facilitates passenger transfer at this point.

Sullivan Square Bus Area

During the year the lower level of the Sullivan square terminal was remodeled to facilitate the operation of buses and the transfer of passengers between the elevated trains and surface cars and buses.

Two bus loops were provided for the following bus routes:—West Medford-Sullivan square via Mystic avenue; Magoun square-Sullivan square via Pearl and Cross streets; and Central square, Cambridge-Sullivan square via Union square, Somerville.

Real Estate Changes

The old unused carhouse at Jamaica Plain and the stable at 825 Shawmut avenue have been razed during the year.

The railway purchased a garage on Bennett street, Cambridge, adjacent to the Bennett street carhouse, to provide additional space needed at that location.

The Charlestown Gas property of 390,675 square feet, lying between large properties of the Boston Elevated on either side, was purchased at a low price compared to its valuation. This property will be of great value in future development and is being put to immediate use by consolidating on this property the quarters of the maintenance department now situated at Baldwin street, Cambridge, and Lenox street, Boston. This consolidation results in operating savings.

BUTLER STREET STATION

A new station, located at Butler street between the Cedar Grove and Milton stations, on the high speed trolley line between Ashmont and Mattapan, was opened for business on October 7.

REMOVAL OF ADAMS SQUARE HEADHOUSE

To improve visibility in Adams square, the headhouse of this subway station was removed by the Boston Transit Department during the latter half of 1931 and an entrance similar to the present entrance to the Scollay square station was built. The work was begun on July 30, and the station was reopened for business on December 11. The old headhouse was 40 feet high, whereas the present structure is but nine feet high. The entrance and exit enclosures are of concrete with a polished granite facing and are partially covered with a concrete roof.

CHARLES STATION

The contract for the new station on the Cambridge-Dorchester rapid transit line at the intersection of Charles and Cambridge streets was let on July 27, 1931. The Department of Public Utilities, which has charge of the construction, states that the station will be ready soon for opening.

The station is located in the centre island of the new traffic circle constructed by the City of Boston. A sub-passageway extends across the traffic circle in a north-easterly and south-westerly direction. An exit from this sub-passageway leads to the surface in front of the station entrance.

The island is surrounded by an ornamental stone balustrade, inside of which will be a ring of trees. Walks will lead to the station entrance from several directions.

The entrance building is an attractive two-story stone structure with steel frame. Stone blocks, laid for ornamental effect, with grooves or rustications at the joints, extend about one-quarter of the height. Above this construction the walls are of plain blocks relieved with pilasters finished off with molded capstones. The axis of the building is practically in line with Charles street. As the north and south walls are the only ones which will be in full view from the approaches, they were given special architectural treatment. In the center of each wall is an offset which breaks the flatness of the wall. In this is an opening nine by 19 feet in size, fitted with a casement window with stone trim. Above this is a large ornamental panel.

On the lower floor of the station are fare-collecting devices, toilet rooms and other small rooms. Broad stairways in the center lead to the east-bound and west-bound elevated platforms. The inner walls are finished in buff brick and the metal partitions are painted in harmony therewith.

At the elevated level, concrete platforms extend westward more than 300 feet and are 12 feet wide for a distance of 155 feet and nine feet wide for the remainder of the distance.

Governor Square Extension

When construction of the Governor square development by the Transit Department of the City of Boston was begun on July 21, 1930, the work was expected to require three years. By pushing the program actively, the Transit Department has advanced the construction more than a half-year ahead of schedule. This development includes the half-mile subway extension out Beacon street to St. Mary's street, approved by the Transit Department on December 9, 1930, and by the Department of Public Utilities on January 8, 1931. It is an extension of the City-owned subway system. Upon completion it will be operated by the railway.

As of December 15, 1931, the excavation work was 80 per cent. complete and the job as a whole 70 per cent. complete. It is expected that the whole improvement will be finished in 1932.

Dorchester Rapid Transit

The trustees believe that attention should again be called to a condition which is apparently retarding the expected growth in the use of the Dorchester rapid transit extension serving the Dorchester section of Boston. A rapid transit line costing a large sum of money is dependent upon density of population for maximum utility.

The section served by the westerly end of the Cambridge-

Dorchester tunnel, namely, that serving Cambridge and vicinity, has grown rapidly by reason of the erection of many apartment buildings. In the Dorchester section of Boston, however, the zoning laws have prevented a similar growth. Unless these zoning laws are changed, the growth of riding on the Dorchester extension will be retarded.

(Signed) HENRY I. HARRIMAN, *Chairman*
EDWARD E. WHITING
CHARLES H. COLE
GEORGE B. JOHNSON
ERNEST A. JOHNSON.

February 1, 1932.

APPENDIXES

APPENDIX 1

LYBRAND, ROSS BROS. & MONTGOMERY
Boston, Massachusetts

To the Trustees of
Boston Elevated Railway,
Boston, Massachusetts.

We have made an examination of the accounts of the Public Trustees of Boston Elevated Railway for the year ended December 31, 1931.

In our opinion, the current provision for depreciation of road and equipment for the year 1931 chargeable to cost of service and determined in accordance with the policy of accounting previously adopted by the trustees is fair and reasonable, but the amount of accrued depreciation appearing in the balance sheet is inadequate.

We certify that the accompanying general balance sheet as at December 31, 1931, subject to the comment in the preceding paragraph, and income statement for the twelve months ended December 31, 1931, in our opinion, set forth the financial position of Boston Elevated Railway at that date and the results of operations for the year then ended.

(Signed) LYBRAND, ROSS BROS. & MONTGOMERY.

Boston, Massachusetts
January 30, 1932.

APPENDIX 2

GENERAL BALANCE SHEET

ASSETS	Dec. 31, 1931	Dec. 31, 1930	Dec. 31, 1922
INVESTMENTS			
Road and Equipment:			
Way and Structures	$61,415,790.99	$61,201,275.69	58,335,275.74
Equipment	30,751,107.71	30,868,226.32	21,423,224.31
Power	18,471,952.71	18,277,027.89	15,690,017.53
General and Miscellaneous	1,912,001.73	1,908,376.86	1,788,473.83
Total Road and Equipment	**$112,550,853.14**	**$112,254,906.76**	**$97,236,991.41**
Miscellaneous Physical Property	**$762,533.79**	**$737,990.74**	**$556,521.48**
Other Investments:			
Stocks	$2,501.00	$2,501.00	$204,061.22
Bonds	568,280.27	——	——
Notes	277,036.00	43,600.00	125,600.00
Advances, Road and Equipment:			
Eastern Massachusetts Street Railway Company	194,923.00	199,048.92	142,002.38
Other Roads	——	——	102,851.11
Total Other Investments	**$1,042,740.27**	**$245,149.92**	**$574,514.71**
Total Investments:	**$114,356,127.20**	**$113,238,047.42**	**$98,368,027.60**

GENERAL BALANCE SHEET—*Continued*

LIABILITIES	Dec. 31, 1931	Dec. 31, 1930	Dec. 31, 1922
STOCK			
Capital Stock:			
First Preferred Stock	——	$6,400,000.00	$6,400,000.00
Second Preferred Stock	——	13,183,450.00	14,029,850.00
Preferred Stock	——	3,000,000.00	3,000,000.00
Common Stock	$23,879,400.00	23,879,400.00	23,879,400.00
Total Capital Stock	**$23,879,400.00**	**$46,462,850.00**	**$47,309,250.00**
Premium on Capital Stock:			
Second Preferred Stock	——	2,232,477.02	2,232,477.02
Common Stock	2,707,428.13	2,707,428.13	2,707,428.13
Total Premium on Capital Stock	**$2,707,428.13**	**$4,939,905.15**	**$4,939,905.15**
Total Stock	**$26,586,828.13**	**$51,402,755.15**	**$52,249,155.15**
LONG TERM DEBT			
Funded Debt Unmatured:			
Miscellaneous Obligations:			
4% 30 yr. W. E. St. Ry. Co. Bonds, due Aug. 1, 1932	5,709,000.00	5,709,000.00	5,709,000.00
5% 20 yr. W. E. St. Ry. Co. Bonds. due Nov. 1, 1932	600,000.00	600,000.00	600,000.00
6% 10 yr. Boston Elev. Ry. Bonds, due June 1, 1933	3,000,000.00	3,000,000.00	——
6% 10 yr. Boston Elev. Ry. Bonds, due Mar. 1, 1934	2,098,000.00	2,098,000.00	——
6½% 10 yr. Boston Elev. Ry. Bonds, due Aug. 1, 1934	1,581,000.00	1,581,000.00	——
4% 30 yr. Boston Elev. Ry. Bonds, due May 1, 1935	8,500,000.00	8,500,000.00	8,500,000.00
5% 20 yr. W. E. St. Ry. Co. Bonds, due May 1, 1936	815,000.00	815,000.00	815,000.00
5% 10 yr. Boston Elev. Ry. Bonds, due Feb. 1, 1937	6,511,000.00	6,511,000.00	——
4½% 30 yr. Boston Elev. Ry Bonds, due Oct. 1, 1937	4,800,000.00	4,800,000.00	4,800,000.00
5% 10 yr. Boston Elev. Ry. Bonds, due July 1, 1940	1,200,000.00	1,200,000.00	——
4½% 30 yr. Boston Elev. Ry. Bonds, due Nov. 1, 1941	5,000,000.00	5,000,000.00	5,000,000.00
5% 30 yr. Boston Elev. Ry. Bonds, due Dec. 1, 1942	8,286,000.00	8,286,000.00	8,286,000.00
5% 30 yr. W. E. St. Ry. Co., Bonds, due Mar 1, 1944	2,600,000.00	2,600,000.00	2,600,000.00
7% 30 yr. W. E. St. Ry. Co. Bonds, due Sept. 1, 1947	570,000.00	570,000.00	570,000.00
6% 40 yr. Boston Elev. Ry. Bonds, due Aug. 14, 1971	21,000,000.00	——	——
6% 40 yr. Boston Elev. Ry. Bonds, due Sept. 14, 1971	2,000,000.00	——	——
Bonds Maturing 1922 to 1930	——	——	9,341,000.00
Total Bonds	**$74,270,000.00**	**$51,270,000.00**	**$46,221,000.00**
Mortgage Notes	——	125,000.00	125,000.00
Total Funded Debt Unmatured	**$74,270,000.00**	**$51,395,000.00**	**$46,346,000.00**
Total Long-Term Debt	**$74,270,000.00**	**$51,395,000.00**	**$46,346,000.00**

GENERAL BALANCE SHEET—*Continued*

ASSETS	Dec. 31, 1931	Dec. 31, 1930	Dec. 31, 1922
CURRENT ASSETS			
Cash	**$1,178,403.20**	**$587,526.20**	**$825,666.20**
Special Deposits:			
Interest, Dividends and Rents Unpaid	$360,399.48	$793,321.75	$804,907.37
Reserve Fund, Chap. 159, Spec. Acts 1918 . . .	——	——	1,000,000.00
Total Special Deposits	**$360,399.48**	**$793,321.75**	**$1,804,907.37**
Loans and Notes Receivable	**$500.00**	**$500.00**	**$1.00**
Miscellaneous Accounts Receivable	**218,436.73**	**207,359.10**	**165,870.47**
Material and Supplies	**1,996,198.66**	**1,946,273.68**	**2,418,280.09**
Interest, Dividends and Rents Receivable	**7,095.91**	**5,889.04**	**50,555.56**
Other Current Assets	**44,180.00**	**44,880.00**	**38,139.00**
Total Current Assets	**$3,805,213.98**	**$3,585,749.77**	**$5,303,419.69**
DEFERRED ASSETS			
Insurance and Other Funds.	802,550.00	2,980,306.68	3,009,892.17
Total Deferred Assets	**$802,550.00**	**$2,980,306.68**	**$3,009,892.17**
UNADJUSTED DEBITS			
Rents and Insurance Premiums Paid in Advance . .	**$72,183.00**	**$108,857.50**	**$62,701.94**
Discount on Funded Debt	**$290,971.27**	**340,192.24**	**$260,251.68**
Other Unadjusted Debits:			
Cost of Service deficit for twelve months ended June 30, 1919, as provided for by Commonwealth of Massachusetts, Chap. 159, Special Acts of 1918	——	1,349,333.35	3,462,955.22
Other Unadjusted Debits	64,664.68	21,821.08	553,975.80
Total Other Unadjusted Debits	**$64,664.68**	**$1,371,154.43**	**$4,016,931.02**
Total Unadjusted Debits	**$427,818.95**	**$1,820,204.17**	**$4,339,884.64**
TOTAL ASSETS	**$119,391,710.13**	**$121,624,308.04**	**$111,021,224.10**

GENERAL BALANCE SHEET—*Concluded*

LIABILITIES	Dec. 31, 1931	Dec. 31, 1930	Dec. 31, 1922
CURRENT LIABILITIES			
Loans and Notes Payable	$2,700,000.00	——	$1,800,000.00
Audited Accounts and Wages Payable	$866,300.80	$611,546.24	$1,082,533.97
Matured Interest, Dividends and Rents Unpaid	$361,618.25	$795,806.25	$806,112.87
Accrued Interest, Dividends and Rents Payable:			
Accrued Interest on Funded Debt	$1,089,937.09	$578,853.76	$516,001.66
Accrued Rent of Leased Roads	5,998.06	236,708.40	253,711.27
Accrued Rent of Subways, Tunnels & R. T. L.	97,673.34	96,623.34	87,543.30
Accrued Interest on Loans and Notes Payable	——	——	343.03
Total Accrued Interest, Dividends and Rents Payable	$1,193,608.49	$912,185.50	$857,599.26
Total Current Liabilities	$5,121,527.54	$2,319,537.99	$4,546,246.10
DEFERRED LIABILITIES			
Other Deferred Liabilities	16,655.18	18,242.69	38,751.14
Total Deferred Liabilities	$16,655.18	$18,242.69	$38,751.14
UNADJUSTED CREDITS			
Tax Liability	$465,112.29	$610,778.55	$844,531.22
Premium on Funded Debt	$89,117.54	$112,125.14	$370,548.58
Injury and Damage Reserve	$1,284,013.11	$1,474,675.07	$906,601.92
Accrued Depreciation—Road and Equipment	$14,017,226.57	$13,667,480.08	$2,058,493.73
Other Unadjusted Credits:			
Outstanding Tickets and Checks	145,612.71	143,812.44	102,233.66
Amount advanced by Commonwealth of Massachusetts under Chapter 159, Special Acts of 1918, account deficit in Cost of Service for 12 months ended June 30, 1919	——	1,349,333.35	3,462,955.22
Unredeemed Preferred Stocks	188,388.84	——	——
Other Unadjusted Credits	——	443.02	25,744.90
Total Other Unadjusted Credits	$334,001.55	$1,493,588.81	$3,590,933.78
Total Unadjusted Credits	$16,189,471.06	$17,358,647.65	$7,771,109.23
CORPORATE SURPLUS			
Profit and Loss			
Prior to July 1, 1918	*7,889.46	*8,253.21	*173,083.65
Year Ended June 30, 1931	*1,969,473.12	*1,513,199.22	——
Since July 1, 1918 (Except Year Ended June 30, 1931)	*1,372,928.22	——	339,521.34
Arising out of Consolidation with West End St. Ry. Co., June 10, 1922 and Reorganization, July 1, 1931	557,519.02	651,576.99	*96,475.21
Total Corporate Surplus	*$2,792,771.78	*$869,875.44	$69,962.48
TOTAL LIABILITIES	$119,391,710.13	$121,624,308.04	$111,021,224.10

*Debit.

APPENDIX 3

INCOME STATEMENT

OPERATING INCOME	Twelve Months Ended Dec. 31, 1931	Twelve Months Ended Dec. 31, 1930	Twelve Months Ended Dec. 31, 1920
Passenger Car Revenue	$25,674,798.04	$28,542,445.38	$33,096,763.69
Passenger Motor Bus Revenue	3,101,446.89	2,811,302.53	—
Special Car and Special Bus Revenue	35,668.70	61,999.03	12,182.79
Mail Revenue	175.00	175.00	737.10
Miscellaneous Transportation Revenue	75.00	555.00	93,041.16
Total Revenue from Transportation	**$28,812,163.63**	**$31,416,476.94**	**$33,202,724.74**
Station and Car Privileges	$758,553.49	$767,692.82	$300,228.32
Rent of Tracks and Facilities	41,418.77	46,889.58	39,059.11
Rent of Equipment	12,878.71	2,841.55	1,644.27
Rent of Buildings and Other Property	68,548.18	67,024.29	100,499.45
Power	70,160.42	71,120.08	92,192.00
Miscellaneous	3,995.30	34,353.23	14,514.61
Total Revenue from Other Railway Operations	**$955,554.87**	**$989,921.55**	**$548,137.76**
Total Railway Operating Revenues	**$29,767,718.50**	**$32,406,398.49**	**$33,750,862.50**
Railway Operating Expenses:			
Way and Structures	3,259,282.64	3,328,419.09	3,226,275.11
Equipment	4,002,205.79	4,226,793.58	4,033,850.42
Power	2,092,201.37	2,391,733.11	4,568,991.90
Conducting Transportation	10,143,076.27	10,735,974.89	11,524,823.18
Traffic	22,744.49	58,006.49	3,357.91
General and Miscellaneous	2,740,925.83	2,792,207.94	2,411,823.59
Transportation for Investment	†9,688.14	†5,160.42	—
Total Railway Operating Expenses	**$22,250,748.25**	**$23,527,974.68**	**$25,769,122.11**
Net Revenue, Railway Operations	**$7,516,970.25**	**$8,878,423.81**	**$7,981,740.39**
Taxes Assignable to Railway Operations	**$1,504,784.86**	**$1,686,950.55**	**$1,142,987.28**
Operating Income	**$6,012,185.39**	**$7,191,473.26**	**$6,838,753.11**

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†Credit.

INCOME STATEMENT—*Concluded*

	Twelve Months Ended Dec. 31, 1931	Twelve Months Ended Dec. 31, 1930	Twelve Months Ended Dec. 31, 1920
NON-OPERATING INCOME			
Income from Funded Securities	1,332.00	3,550.50	15,536.89
Income from Unfunded Securities and Accounts	11,134.76	42,684.03	233,379.60
Income from Sinking Fund and Other Reserves	51,424.49	33,280.00	28,853.33
Release of Premiums on Funded Debt	23,007.60	23,801.64	—
Miscellaneous Income	489.95	1,006.51	3,004.12
Total Non-Operating Income	**$87,388.80**	**$104,322.68**	**$280,773.94**
Gross Income	**$6,099,574.19**	**$7,295,795.94**	**$7,119,527.05**
DEDUCTIONS FROM GROSS INCOME			
Rent for Leased Roads:			
Boston Elevated Railway—Dividend Rental	$2,134,823.50	$3,081,309.37	$2,957,758.00
Other Roads	46,513.76	48,716.08	56,803.71
Total Rent for Leased Roads	**$2,181,337.26**	**$3,130,025.45**	**$3,014,561.71**
Miscellaneous Rents	2,780,188.49	2,775,244.49	1,790,432.30
Net Loss on Miscellaneous Physical Property	4,494.43	5,133.37	9,325.77
Interest on Funded Debt	2,962,236.66	2,456,285.00	2,201,311.25
Interest on Unfunded Debt	11,358.48	†910.34	401,321.38
Amortization of Discount on Funded Debt	49,440.97	48,411.52	34,860.38
Miscellaneous Debits	15,463.25	16,245.26	14,881.50
Total Deductions from Gross Income	**$8,004,519.54**	**$8,430,434.75**	**$7,466,694.29**
Operating Loss for Year	***$1,904,945.35**	***$1,134,638.81**	***$347,167.24**

†Credit. *Debit.

Appendix 4

Operating Expense Accounts

	1931	1930	1920
Way and Structures			
Superintendence of Way and Structures	$316,398.02	$303,745.52	$194,428.55
Maintenance of Track and Roadway	1,235,816.76	1,248,504.68	1,642,612.96
Removal of Snow and Ice	61,942.36	55,376.73	615,548.70
Roadway Structures	99,751.10	115,311.44	79,253.48
Signals and Interlocking Apparatus	31,234.86	32,426.50	19,454.93
Telephone and Telegraph Lines	13,029.39	9,530.20	26,273.89
Other Miscellaneous Way Expenses	56,356.68	39,859.01	19,163.99
Maintenance of Electric Line Equipment	240,311.92	238,558.42	264,490.05
Maintenance of Buildings and Grounds	338,041.55	363,986.59	348,048.56
Depreciation of Way and Structures	866,400.00	921,120.00	17,000.00
Total Way and Structures	**$3,259,282.64**	**$3,328,419.09**	**$3,226,275.11**
Equipment			
Superintendence of Equipment	$162,009.15	$165,160.48	$136,169.08
Maintenance of Cars and Buses	1,629,517.25	1,716,616.20	1,600,764.73
Service Equipment	39,686.74	49,987.77	98,803.38
Maintenance of Electric Equipment of Cars	466,602.03	492,655.60	804,309.30
Shop Equipment	31,283.44	30,399.16	42,420.42
Shop Expenses	248,794.54	235,061.40	284,539.15
Miscellaneous Equipment	72,143.79	79,250.51	44,844.36
Depreciation of Equipment	1,003,200.00	1,042,320.00	1,022,000.00
Depreciation—Motor Buses	348,968.85	415,342.46	—
Total Equipment	**$4,002,205.79**	**$4,226,793.58**	**$4,033,850.42**
Power			
Superintendence of Power	$98,299.50	$108,782.31	$85,059.57
Maintenance of Power Plant Bldgs. and Equipment	276,294.56	330,834.71	457,635.12
Depreciation of Power Plant Bldgs. and Equipment	410,400.00	460,560.00	965,000.00
Operation of Power Plants	1,119,509.16	1,270,000.53	3,061,297.21
Gasoline for Motor Buses	187,698.15	221,555.56	—
Total Power	**$2,092,201.37**	**$2,391,733.11**	**$4,568,991.90**

OPERATING EXPENSE ACCOUNTS—*Concluded*

	1931	1930	1920
CONDUCTING TRANSPORTATION			
Superintendence of Transportation	$1,258,758.97	$1,331,828.87	$1,008,465.02
Passenger Car, Trainmen and Bus Operators	6,059,955.08	6,455,330.91	7,646,971.90
Adv. Car and Trainmen	35.26	278.55	15,715.67
Miscellaneous Car and Bus Service Employes	237,718.65	248,006.63	296,455.06
Miscellaneous Car and Bus Service Expenses	134,828.84	144,432.16	206,948.02
Station Employes	676,719.17	680,360.89	735,178.90
Station Expenses	228,502.13	268,109.33	219,632.87
Car House and Bus Garage Employes	937,878.02	977,354.39	920,926.65
Car House and Bus Garage Expenses	96,133.78	98,626.21	75,141.23
Operation of Signal and Interlocking Apparatus	278,544.67	278,163.15	200,957.76
Operation of Telephone and Telegraph Lines	11,945.73	17,703.27	13,601.93
Other Transportation Expenses	222,055.97	235,780.53	184,828.17
Total Conducting Transportation	**$10,143,076.27**	**$10,735,974.89**	**$11,524,823.18**
TRAFFIC			
Traffic	**$22,744.49**	**$58,006.49**	**$3,357.91**
GENERAL AND MISCELLANEOUS			
Salaries and Expenses of General Officers	$92,590.29	$93,580.49	$82,523.20
Salaries and Expenses of General Office Clerks	392,255.27	389,155.90	326,302.59
General Office Supplies and Expenses	115,607.60	124,034.83	198,992.05
Law Expenses	47,822.10	43,616.86	35,941.44
Relief Department Expenses	3,607.50	4,920.00	4,920.00
Pensions and Gratuities	303,922.17	277,512.70	38,917.44
Miscellaneous General Expenses	158,660.23	158,539.27	75,865.97
Valuation Expenses	1,382.87	—	—
Injuries and Damages	1,061,835.49	1,108,584.61	785,971.56
Insurance	171,166.32	174,866.71	372,849.38
Stationery and Printing	65,144.86	76,416.34	108,569.70
Store Expenses	213,295.78	213,804.31	172,166.35
Garage Expenses (Excl. Bus Garages)	72,170.13	83,007.29	178,803.57
Rent of Tracks and Facilities	20,260.62	20,523.28	13,998.99
Rent of Equipment	21,204.60	23,645.35	16,001.35
Total General and Miscellaneous	**$2,740,925.83**	**$2,792,207.94**	**$2,411,823.59**
TRANSPORTATION FOR INVESTMENT	†$9,688.14	†5,160.42	—
TOTAL OPERATING EXPENSES	**$22,250,748.25**	**$23,527,974.68**	**$25,769,122.11**

†Credit.

APPENDIX 5

ROAD AND EQUIPMENT INVESTMENT

	ACCOUNT	Total Dec. 31, 1931	Total Dec. 31, 1930
	WAY AND STRUCTURES		
A/c 501	Engineering and Superintendence	$1,771,879.54	$1,771,879.54
502	Right of Way	11,450,498.79	11,450,037.63
503	Other Land	5,732,677.53	5,509,968.93
504	Grading	265,326.32	264,967.40
505	Ballast	773,511.94	771,059.23
506	Ties	901,683.61	921,102.55
507	Rails, Rail Fastenings and Joints	2,366,725.12	2,487,254.31
508	Special Work	4,404,807.45	4,428,432.52
510	Track and Roadway Labor	4,237,533.71	4,251,695.47
511	Paving	1,654,813.03	1,636,129.82
512	Roadway Machinery and Tools	290,729.46	277,127.41
513	Tunnels and Subways	322,975.13	322,159.92
514	Elevated Structures and Foundations	5,734,943.16	5,734,943.16
515	Bridges, Trestles and Culverts	1,927,537.45	1,928,687.45
516	Crossings, Fences and Signs	124,148.21	124,148.21
517	Signals and Interlocking Apparatus	1,111,754.87	1,110,649.09
518	Telephone and Telegraph Lines	101,711.17	101,711.17
519	Poles and Fixtures	629,554.27	643,132.50
520	Underground Conduit	1,836,372.92	1,821,984.96
521	Distribution System	3,919,489.13	3,928,610.37
523	Shops, Car Houses and Garages	7,297,919.95	7,207,631.11
524	Stations, Misc. Buildings and Structures	4,326,897.03	4,275,661.74
525	Wharves and Docks	232,301.20	232,301.20
	Total Way and Structures	$61,415,790.99	$61,201,275.69
	EQUIPMENT		
A/c 530	Passenger Cars and Buses	$20,091,241.33	$19,981,180.52
532	Service Equipment	1,062,267.28	1,062,321.80
533	Electric Equipment of Cars	8,225,537.63	8,460,885.09
536	Shop Equipment	697,879.05	696,137.44
537	Furniture	219,767.84	208,134.64
538	Miscellaneous Equipment	454,414.58	459,566.83
	Total Equipment	$30,751,107.71	$30,868,226.32
	POWER		
A/c 539	Power Plant Buildings	$5,323,106.81	$5,191,590.31
540	Sub Station Buildings	554,210.85	551,125.68
542	Power Plant Equipment	8,441,478.19	8,649,913.28
543	Sub Station Equipment	2,544,479.67	2,277,497.31
544	Transmission System	1,608,677.19	1,606,901.31
	Total Power	$18,471,952.71	$18,277,027.89
	GENERAL AND MISCELLANEOUS		
A/c 546	Law Expenditures	$250.00	$250.00
547	Interest during Construction	1,761,084.37	1,757,459.50
548	Injuries and Damages	7,500.00	7,500.00
549	Taxes	161,349.02	161,349.02
550	Miscellaneous	**18,181.66**	**18,181.66**
	Total General and Miscellaneous	$1,912,001.73	$1,908,376.86
	TOTAL ROAD AND EQUIPMENT	$112,550,853.14	$112,254,906.76

Note:—Bold denote credits.

Appendix 6

Investment in Road Owned and Leased December 31, 1931

Boston Elevated Railway			
Road and Equipment		$112,550,853.14	
Miscellaneous Physical Property		762,533.79	
Total Boston Elevated Railway Investment			$113,313,386.93
Leased Lines			
Hyde Park Transportation District (City of Boston)		$231,099.45	
Eastern Mass. St. Ry. Co. (Part Leased)			
Old Colony Lines, W. Roxbury	$672,847.44		
Boston & Northern Lines, East Boston	34,980.72		
Boston & Northern Lines, Middlesex Fells Line	29,546.01		
Expenditures for Additions and Betterments	194,923.00		
Total Eastern Mass. St. Ry. Co.		932,297.17	
Total Leased Lines			1,163,396.62
City of Boston Investment			
Boylston Subway		$6,514,492.71	
Cambridge Connection		1,653,129.88	
Dorchester Tunnel		12,202,158.38	
Dorchester Rapid Transit Extension		10,768,533.62	
East Boston Tunnel		7,226,587.45	
East Boston Tunnel Extension		2,344,175.49	
Tremont Subway		4,456,831.96	
Washington Tunnel		7,946,965.19	
Total City of Boston Investment			53,112,874.68
Commonwealth of Massachusetts Investment			
Cambridge Subway		$7,964,000.00	
Total Commonwealth of Massachusetts Investment			7,964,000.00
TOTAL INVESTMENT IN ROAD OWNED AND LEASED			$175,553,658.23

APPENDIX 7

INVESTMENT, PASSENGER REVENUE AND TOTAL INCOME 1897-1931

Year Ended	Total Investment	Passenger Revenue	Total Income	Permanent Investment	
				Per $1 of Pass. Rev.	Per $1 of Total Income
Dec. 31, 1931 . . .	$175,553,658.23	$28,811,913.63	$29,855,107.30	$6.09	$5.88
Dec. 31, 1930 . . .	175,045,256.41	31,415,746.94	32,510,721.17	5.57	5.38
Dec. 31, 1929 . . .	175,224,091.62	32,885,587.94	34,096,623.03	5.33	5.14
Dec. 31, 1928 . . .	172,486,669.04	33,616,877.00	34,843,147.51	5.13	4.95
Dec. 31, 1927 . . .	163,901,383.91	34,000,570.95	35,193,410.03	4.82	4.67
Dec. 31, 1926 . . .	159,025,141.62	34,393,953.90	35,481,313.38	4.62	4.48
Dec. 31, 1925 . . .	156,474,884.41	33,790,441.73	34,547,379.61	4.63	4.53
Dec. 31, 1924 . . .	155,490,852.91	33,419,172.22	34,175,319.61	4.65	4.54
Dec. 31, 1923 . . .	149,001,108.85	33,297,951.50	34,096,813.26	4.48	4.37
Dec. 31, 1922 . . .	143,345,873.68	31,834,022.77	32,699,176.37	4.50	4.38
Dec. 31, 1921 . . .	141,345,133.42	32,253,629.59	33,277,025.53	4.38	4.25
Dec. 31, 1920 . . .	139,156,058.00	33,108,946.48	34,031,636.44	4.20	4.09
Dec. 31, 1919 . . .	138,117,974.50	28,767,544.11	29,498,582.82	4.84	4.68
Dec. 31, 1918 . . .	134,181,073.47	20,352,412.11	21,062,962.82	6.59	6.37
Dec. 31, 1917 . . .	121,807,319.67	19,030,940.62	19,818,407.01	6.40	6.15
June 30, 1916 . . .	117,116,007.58	18,148,646.75	18,781,327.74	6.45	6.24
June 30, 1915 . . .	113,166,182.04	17,290,203.30	17,886,549.64	6.55	6.33
June 30, 1914 . . .	106,990,919.12	17,136,776.63	17,785,978.25	6.24	6.02
June 30, 1913 . . .	105,019,587.59	16,289,918.96	16,968,328.33	6.45	6.19
June 30, 1912 . . .	101,864,058.69	15,491,051.71	16,522,542.00	6.58	6.17
June 30, 1911 . . .	92,904,910.27	15,227,984.08	15,980,707.94	6.10	5.81
Sept. 30, 1909 . . .	81,592,634.49	14,024,768.39	14,493,853.13	5.82	5.63
Sept. 30, 1908 . . .	70,957,716.76	13,628,383.20	14,074,696.51	5.20	5.04
Sept. 30, 1907 . . .	65,979,896.07	13,546,779.20	14,011,167.72	4.87	4.71
Sept. 30, 1906 . . .	59,873,910.46	13,109,316.03	13,634,612.49	4.57	4.39
Sept. 30, 1905 . . .	57,187,809.61	12,337,867.16	12,741,569.30	4.64	4.49
Sept. 30, 1904 . . .	51,886,524.39	12,078,800.39	12,436,593.79	4.30	4.13
Sept. 30, 1903 . . .	48,398,610.91	11,666,906.60	12,019,371.26	4.15	4.03
Sept. 30, 1902 . . .	46,466,591.31	11,060,385.40	11,321,030.13	4.20	4.10
Sept. 30, 1901 . . .	44,087,939.53	10,562,533.45	10,869,496.33	4.17	4.06
Sept. 30, 1900 . . .	37,793,501.62	9,948,438.78	10,236,994.49	3.80	3.69
Sept. 30, 1899 . . .	33,187,250.79	9,449,928.89	9,756,136.25	3.51	3.40
Sept. 30, 1898 . . .	31,251,811.90	8,967,587.56	9,257,252.94	3.48	3.38
Sept. 30, 1897 . . .	25,291,913.22	8,536,285.83	8,719,031.78	2.96	2.90

The permanent investment represents the actual money expended for property operated, owned and leased, including subways, tunnels and rapid transit lines owned by the City of Boston and Commonwealth of Massachusetts.

APPENDIX 8

OUTSTANDING CAPITAL STOCK DECEMBER 31, 1931

COMMON STOCK

No. Shares Outstanding	Par Value Shares Outstanding	Net Premium	Amount Realized	Date of Approval by Commission	Yearly Dividend	Dividends Payable
5,000	$500,000.00	—	$500,000.00	July 26, 1897		
95,000	9,500,000.00	—	9,500,000.00	July 6, 1900		
33,000	3,300,000.00	$1,815,000.00	5,115,000.00	Aug. 22, 1902		
66,500	6,650,000.00	695,958.13	7,345,958.13	Dec. 18, 1908		
39,294	3,929,400.00	196,470.00	4,125,870.00	Dec. 6, 1912		
238,794	$23,879,400.00	$2,707,428.13	$26,586,828.13		5%—$1,193,970.00	Jan. 1 Apr. 1 July 1 Oct. 1

OUTSTANDING FUNDED DEBT

Par Value	Rate	Maturity	Net Premium or Discount	Amount Realized	Date of Approval by Commission	Yearly Interest	Co.
$3,000,000.00	6 %	June 1, 1933	*$180,000.00	$2,820,000.00	May 10, 1923	$180,000.00	B. E.
2,098,000.00	6 %	Mar. 1, 1934	24,315.82	2,122,315.82	Feb. 15, 1924	125,880.00	B. E.
1,581,000.00	5½%	Aug. 1, 1934	*5,027.58	1,575,972.42	June 19, 1924	86,955.00	B. E.
7,500,000.00	4 %	May 1, 1935	276,900.00	7,776,900.00	Apr. 7, 1905	300,000.00	B. E.
1,000,000.00	4 %	May 1, 1935	*55,000.00	945,000.00	June 15, 1907	40,000.00	B. E.
‡1,926,000.00	5 %	Feb. 1, 1937	*23,131.26	1,902,868.74	Mar. 2, 1925	96,300.00	B. E.
‡2,700,000.00	5 %	Feb. 1, 1937	*32,427.00	2,667,573.00	Dec. 9, 1926	135,000.00	B. E.
‡1,885,000.00	5 %	Feb. 1, 1937	*7,426.90	1,877,573.10	Dec. 9, 1926	94,250.00	B. E.
4,800,000.00	4½%	Oct. 1, 1937	*29,585.04	4,770,414.96	June 15, 1907	216,000.00	B. E.
†1,200,000.00	5 %	July 1, 1940	*19,200.00	1,180,800.00	May 14, 1930	60,000.00	B. E.
5,000,000.00	4½%	Nov. 1, 1941	*100,000.00	4,900,000.00	Oct. 17, 1911	225,000.00	B. E.
4,000,000.00	5 %	Dec. 1, 1942	*80,000.00	3,920,000.00	Dec. 6, 1912	200,000.00	B. E.
1,000,000.00	5 %	Dec. 1, 1942	*78,940.00	921,060.00	May 27, 1914	50,000.00	B. E.
3,286,000.00	5 %	Dec. 1, 1942	*261,779.76	3,024,220.24	Nov. 9, 1915	164,300.00	B. E.
21,000,000.00	6 %	Aug. 14, 1971	—	21,000,000.00	* * *	1,260,000.00	B. E.
2,000,000.00	6 %	Sept. 14, 1971	—	2,000,000.00	* * *	120,000.00	B. E.
$63,976,000.00			*$571,301.72	$63,404,698.28		$3,353,685.00	
3,559,000.00	4 %	Aug. 1, 1932	72,568.01	3,631,568.01	Sept. 18, 1902	142,360.00	W. E.
700,000.00	4 %	Aug. 1, 1932	33,251.00	733,251.00	Dec. 1, 1903	28,000.00	W. E.
750,000.00	4 %	Aug. 1, 1932	38,227.50	788,227.50	Sept. 1, 1904	30,000.00	W. E.
200,000.00	4 %	Aug. 1, 1932	11,866.00	211,866.00	Feb. 11, 1905	8,000.00	W. E.
500,000.00	4 %	Aug. 1, 1932	2,290.00	502,290.00	Dec. 12, 1906	20,000.00	W. E.
600,000.00	5 %	Nov. 1, 1932	24,888.00	624,888.00	Feb. 13, 1913	30,000.00	W. E.
815,000.00	5 %	May 1, 1936	5,786.50	820,786.50	Apr. 6, 1916	40,750.00	W. E.
2,600,000.00	5 %	Mar. 1, 1944	112,832.07	2,712,832.07	Feb. 4, 1914 Apr. 14, 1914	130,000.00	W. E.
570,000.00	7 %	Sept. 1, 1947	399.00	570,399.00	Aug. 24, 1917 Sept. 4, 1917	39,900.00	W. E.
$10,294,000.00			$302,108.08	$10,596,108.08		$469,010.00	
$74,270,000.00			*$269,193.64	$74,000,806.36		$3,822,695.00	

* Discount.

‡Redeemable on any interest date after February 1, 1929 @ $101.

† Redeemable on any interest date after February 1, 1932 @ $101.

***Authorized by Section 4, Chapter 333, Acts of 1931.

APPENDIX 9

REVENUE PASSENGERS CARRIED—1897 TO 1931

Year Ended	5c Fares	6 and 6¼c Tickets and Tokens	7c Fares	8c Fares	10c Fares	Pupils' Tickets 5c	Special Car & Special Bus Passengers *(See Note)*	Total Revenue Passengers	Per Cent Yearly Increase
Sept. 30, 1897	172,554,514	—	—	—	—	—	—	172,554,514	3.41%
Sept. 30, 1898	181,321,295	—	—	—	—	—	—	181,321,295	5.08
Sept. 30. 1899	191,023,224	—	—	—	—	—	—	191,023,224	5.35
Sept. 30, 1900	201,124,710	—	—	—	—	—	—	201,124,710	5.29
Sept. 30, 1901	213,703,983	—	—	—	—	—	—	213,703,983	6.25
Sept. 30, 1902	222,484,811	—	—	—	—	—	—	222,484,811	4.11
Sept. 30, 1903	233,563,578	—	—	—	—	—	—	233,563,578	4.99
Sept. 30, 1904	241,681,945	—	—	—	—	—	—	241,681,945	3.48
Sept. 30, 1905	246,941,776	—	—	—	—	—	—	246,941,776	2.18
Sept. 30, 1906	262,267,240	—	—	—	—	—	—	262,267,240	6.21
Sept. 30, 1907	271,084,815	—	—	—	—	—	—	271,084,815	3.36
Sept. 30, 1908	272,990,357	—	—	—	—	—	142,227	273,132,584	0.76
Sept. 30, 1909	280,825,809	—	—	—	—	—	182,662	281,008,471	2.88
June 30, 1911	304,826,768	—	—	—	—	—	271,897	305,098,665	4.45
June 30, 1912	310,077,600	—	—	—	—	—	232,409	310,310,009	1.71
June 30, 1913	326,148,553	—	—	—	—	—	204,310	326,352,863	5.17
June 30, 1914	342,962,091	—	—	—	—	—	218,958	343,181,049	5.16
June 30, 1915	346,146,183	—	—	—	—	—	170,401	346,316,584	0.91
June 30, 1916	363,303,453	—	—	—	—	—	173,588	363,477,041	4.95
Dec. 31, 1917	380,819,242	—	—	—	—	—	198,096	381,017,338	1.99
Dec. 31, 1918	217,203,899	—	102,619,954	28,739,858	—	—	100,989	348,664,700	8.49

REVENUE PASSENGERS CARRIED — 1897 TO 1931—*Concluded*

Year Ended	5c Fares	6 and 6¼c Tickets and Tokens	7c Fares	8c Fares	10c Fares	Pupils' Tickets 5c	Special Car & Special Bus Passengers (*See Note*)	Total Revenue Passengers	Per Cent Yearly Increase
Dec. 31, 1919	886,034	—	—	173,808,769	146,162,131	3,803,815	97,936	324,758,685	**6.86**
Dec. 31, 1920	3,846,989	—	—	—	326,496,184	5,105,588	77,800	335,526,561	3.32
Dec. 31, 1921	23,915,742	—	—	—	307,624,243	5,606,105	105,990	337,252,080	0.51
Dec. 31, 1922	71,425,347	—	—	—	279,851,313	5,213,664	103,618	356,593,942	5.73
Dec. 31, 1923	94,170,518	—	—	—	283,660,762	4,214,132	104,285	382,149,697	7.17
Dec. 31, 1924	85,218,867	9,549,775	—	—	283,569,003	4,443,228	107,975	382,888,848	0.19
Dec. 31, 1925	3,853,807	55,937,785	—	—	299,107,782	6,003,917	132,995	365,036,286	**§4.66**
Dec. 31, 1926	1,936,219	58,803,057	—	—	304,378,164	5,971,189	129,772	371,218,401	1.69
Dec. 31, 1927	2,355,682	58,890,542	—	—	299,340,854	6,178,984	172,846	366,938,908	**1.15**
Dec. 31, 1928	2,743,742	57,785,211	—	—	295,168,018	6,146,748	161,314	362,005,033	**1.34**
Dec. 31, 1929	2,612,980	56,272,366	—	—	288,789,514	6,371,689	168,441	354,214,990	**2.15**
Dec. 31, 1930	24,123,763	36,295,851	—	—	275,612,705	6,357,662	304,924	342,694,905	**3.25**
Dec. 31, 1931	67,262,611	38,625	—	—	250,941,595	6,330,862	214,884	324,788,577	**5.23**

5c Fare previous to August 1, 1918.
7c Fare August 1, 1918.
8c Fare December 1, 1918.
Pupils' Tickets (5c) Jan. 1, 1919.

10c Fare July 10, 1919.
First 5c Fare Line (without transfer) August 23, 1919.
First 5c Local Fare Line March 26, 1921.
6c Local Fare November 5, 1924.

6¼c Local Fare July 1, 1927.
6¼c Tokens, Sept. 14, 1929.
6¼c Tickets and Tokens discontinued Aug. 31, 1930.
5c Local Fares started Sept. 1, 1930.

Note:—Previous to 1908 Special Car Passengers included with 5c Fares.

§During the years 1922, 1923 and 1924, one passenger making a single journey for which he might pay two five-cent fares was counted as two revenue passengers. The substitution in November 1924, of six-cent tickets for five-cent cash fares often resulted in the payment of a ten-cent fare by such a passenger with a consequent reduction in the company's figures of total revenue passengers carried, though the gross passenger revenue for the year 1925 which increased $371,269.51 would indicate substantially the same number of passengers carried by the railway in 1925 and 1924.

Bold face Denotes Decreases.

APPENDIX 10

REVENUE MILEAGE — 1898 TO 1931

Year Ended	Rapid Transit Lines	Surface Lines				Total Passenger Service	Other Revenue Mileage	Total Revenue Mileage
		Two Men Cars	One Man Cars	Motor Buses	Total Surface Lines			
Sept. 30, 1898	—	32,209,150	—	—	32,209,150	32,209,150	170,295	32,379,445
Sept. 30, 1899	—	34,594,224	—	—	34,594,224	34,594,224	174,294	34,768,518
Sept. 30, 1900	—	38,171,984	—	—	38,171,984	38,171,984	181,530	38,353,514
Sept. 30, 1901	1,516,175	42,115,209	—	—	42,115,209	43,631,384	193,495	43,824,879
Sept. 30, 1902	5,725,455	40,047,381	—	—	40,047,381	45,772,836	227,163	45,999,999
Sept. 30, 1903	7,086,634	40,390,068	—	—	40,390,068	47,476,702	211,785	47,688,487
Sept. 30, 1904	7,004,579	41,313,402	—	—	41,313,402	48,317,981	202,471	48,520,452
Sept. 30, 1905	7,045,174	41,024,230	—	—	41,024,230	48,069,404	204,218	48,273,622
Sept. 30, 1906	7,718,735	42,337,873	—	—	42,337,873	50,056,608	224,178	50,280,786
Sept. 30, 1907	7,802,457	44,027,731	—	—	44,027,731	51,830,188	231,381	52,061,569
Sept. 30, 1908	7,806,503	43,818,640	—	—	43,818,640	51,625,143	232,746	51,857,889
Sept. 30, 1909	7,295,450	43,599,806	—	—	43,599,806	50,895,256	232,425	51,127,681
June 30, 1911	8,523,434	45,895,457	—	—	45,895,457	54,418,891	228,305	54,647,196
June 30, 1912	9,362,316	45,202,162	—	—	45,202,162	54,564,478	225,695	54,790,173
June 30, 1913	11,385,787	46,118,784	—	—	46,118,784	57,504,571	279,748	57,784,319
June 30, 1914	11,647,877	45,973,201	—	—	45,973,201	57,621,078	369,358	57,990,436
June 30, 1915	12,081,986	45,306,117	—	—	45,306,117	57,388,103	417,592	57,805,695
June 30, 1916	12,920,965	45,415,479	—	—	45,415,479	58,336,444	235,864	58,572,308
Dec. 31, 1917	14,467,782	44,725,977	—	—	44,725,977	59,193,759	261,934	59,455,693
Dec. 31, 1918	13,364,229	39,398,056	—	—	39,398,056	52,762,285	259,531	53,021,816
Dec. 31, 1919	14,139,619	39,373,452	20,451	—	39,393,903	53,533,522	187,727	53,721,249

Revenue Mileage — 1898 to 1931—*Concluded*

Year Ended	Rapid Transit Lines	Surface Lines				Total Passenger Service	Other Revenue Mileage	Total Revenue Mileage
		Two Men Cars	One Man Cars	Motor Buses	Total Surface Lines			
Dec. 31, 1920	14,540,474	36,192,621	504,432	—	36,697,053	51,237,527	122,328	51,359,855
Dec. 31, 1921	13,974,490	33,244,477	2,487,730	—	35,732,207	49,706,697	97,928	49,804,625
Dec. 31, 1922	13,316,094	32,184,135	5,010,900	63,959	37,258,994	50,575,088	132,652	50,707,740
Dec. 31, 1923	13,795,114	30,277,855	9,511,305	465,391	40,254,551	54,049,665	106,399	54,156,064
Dec. 31, 1924	14,747,699	28,152,492	12,197,587	890,901	41,240,980	55,988,679	102,668	56,091,347
Dec. 31, 1925	14,836,656	24,880,686	13,271,296	2,472,456	40,624,438	55,461,094	97,032	55,558,126
Dec. 31, 1926	15,104,778	23,653,994	14,419,209	4,717,900	42,791,103	57,895,881	47,500	57,943,381
Dec. 31, 1927	15,224,531	20,919,321	15,121,344	5,562,766	41,603,431	56,827,962	6,067	56,834,029
Dec. 31, 1928	16,701,106	18,809,991	15,964,148	5,999,879	40,774,018	57,475,124	6,168	57,481,292
Dec. 31, 1929	16,924,006	14,686,292	17,930,051	7,138,386	39,754,729	56,678,735	6,250	56,684,985
Dec. 31, 1930	16,508,224	11,440,310	20,298,873	7,813,467	39,552,650	56,060,874	969	56,061,843
Dec. 31, 1931	15,176,011	10,020,656	19,585,766	8,771,384	38,377,806	53,553,817	72	53,553,889

RAPID TRANSIT LINES

Elevated, Main Line, Sullivan Sq. to Dudley St.	Started June 10, 1901
Elevated, Atlantic Ave.	Started Aug. 22, 1901
Washington St. Tunnel	Opened Nov. 30, 1908
Elevated, Main Line	Extended to Forest Hills, Nov. 22, 1909
Cambridge Subway	Opened Mar. 23, 1912
Cambridge-Dorchester Tunnel to Broadway Sta.	Opened Dec. 15, 1917
Cambridge-Dorchester Tunnel	Extended to Andrew Sta., June 29, 1918
Elevated, Main Line	Extended to Everett Sta., Mar. 15, 1919
Cambridge-Dorchester Tunnel	Extended to Fields Corner, Nov. 5, 1927
Cambridge-Dorchester Tunnel	Extended to Ashmont, Sept. 1, 1928
East Boston Tunnel changed to Rapid Transit Operation,	April 21, 1924
Dorchester Extension High Speed Trolley Line to Mattapan	Opened December 21, 1929

SURFACE CAR LINES

Tremont St. Subway, Church St. to Park St.	Opened Sept. 1, 1897
Tremont St. Subway, Pleasant St. to Park St.	Opened Oct. 1, 1897
Tremont St. Subway, Park St. to North Sta.	Opened Sept. 3, 1898
East Boston Tunnel	Opened Dec. 30, 1904
East Cambridge Viaduct	Opened June 1, 1912
Boylston St. Subway	Opened Oct. 3, 1914

Mail Car Operation discontinued August 14, 1915.

APPENDIX 11

Comparative Division of Receipts and Expenditures for Years Ended Dec. 31.

	1931	1930	1929	1928	1927
Total Receipts	$29,855,107.30	$32,510,721.17	$34,096,623.03	$34,843,147.51	$35,193,410.03
Operating Expenses:					
Wages	$15,039,762.49	$15,865,649.37	$16,093,870.85	$16,646,421.20	$16,757,338.49
Material and other items .	2,739,629.21	2,778,098.93	2,770,526.62	3,008,221.56	3,099,523.98
Injuries and Damages .	875,302.98	917,354.53	1,010,378.57	1,306,882.63	1,203,518.05
Depreciation	2,628,968.85	2,839,342.46	2,878,054.52	2,671,141.73	2,824,220.15
Fuel (inc. Gasoline for Buses)	967,084.72	1,127,529.39	1,271,916.67	1,267,521.57	1,247,732.14
Total Operating Expenses	$22,250,748.25	$23,527,974.68	$24,024,747.23	$24,900,188.69	$25,132,332.81
Taxes	1,504,784.86	1,686,950.55	1,619,962.88	1,721,678.45	1,864,135.90
Rent for Leased Roads . .	46,513.76	48,716.08	49,472.54	50,119.61	49,919.33
Dividends	2,134,823.50	3,081,309.37	3,089,528.26	3,095,606.87	3,102,512.38
Subway, Tunnel and Rapid Transit Line Rentals . .	2,780,188.49	2,775,244.49	2,650,371.31	2,389,354.11	2,224,087.95
Interest on Bonds and Notes	2,973,595.14	2,455,374.66	2,495,850.19	2,557,565.53	2,524,843.23
Miscellaneous Items . .	69,398.65	69,790.15	72,617.98	88,583.23	72,762.94
Total Cost of Service . .	$31,760,052.65	$33,645,359.98	$34,002,550.39	$34,803,096.49	$34,970,594.54
Gain for Year	—	—	$94,072.64	$40,051.02	$222,815.49
Loss for Year	$1,904,945.35	$1,134,638.81	—	—	—

NOTE:—Profit and Loss Items not included above.

APPENDIX 12

Traffic Statistics, Year Ended December 31

	1931	1930	1929	1928
Round trips operated	7,102,373	7,453,801	7,361,738	7,316,027
Passenger revenue	$28,811,913.63	$31,415,746.94	$32,885,587.94	$33,616,877.00
Passenger revenue per mile (cents)	53.80c	56.04c	58.01c	58.49c
Passenger revenue per hour . . .	$5.43	$5.66	$5.86	$5.92
Passenger revenue mileage . . .	53,553,817*	56,060,874*	56,684,985*	57,475,124*
Passenger revenue hours	5,303,580	5,548,253	5,613,300	5,674,941
Revenue passengers carried . .	324,788,577	342,694,905	354,214,990	362,005,033
Revenue passengers carried per mile	6.065	6.113	6.249	6.298
Revenue passengers carried per hour	61.24	61.77	63.10	63.79

*Including motor bus mileage

1931	8,771,384
1930	7.813,467
1929	7,138,386
1928	5,999,879

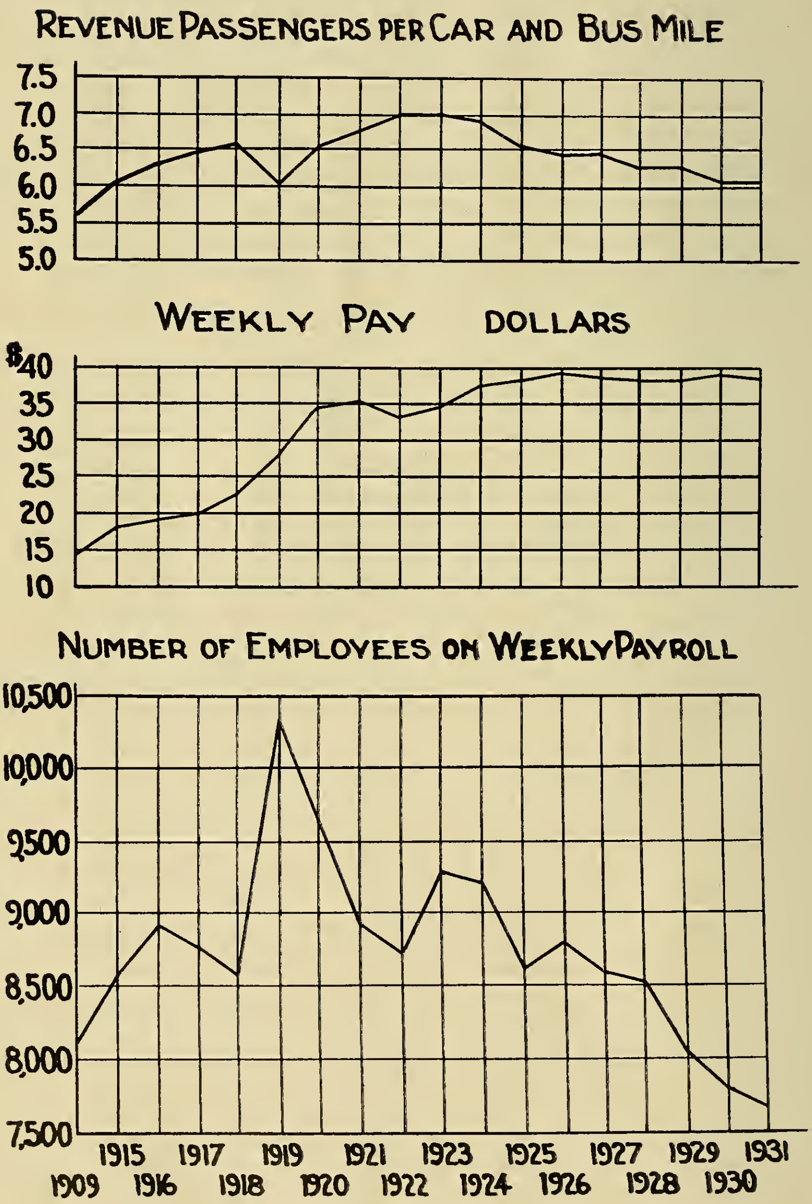
APPENDIX 13

Comparative Passenger Statistics—Revenue Passengers Carried

Year	Week Day Average	Saturday Average	Sunday Average	Holiday Average	Total for Year
1931	971,487	997,669	460,564	558,262	324,788,577
1930	1,025,036	1,050,111	488,101	590,810	342,694,905
1929	1,049,304	1,123,058	518,093	602,071	354,214,990
1928	1,067,980	1,143,250	539,813	631,916	362,005,033
1927	1,079,087	1,166,933	555,326	661,840	366,938,908
1926	1,086,544	1,191,342	576,701	666,258	371,218,401
1925	1,066,317	1,172,871	577,200	660,007	365,036,286
1924	1,109,861	1,216,132	630,755	727,191	382,888,848
1923	1,109,274	1,196,301	652,404	758,915	382,149,697
1922	1,030,303	1,144,320	617,148	691,890	356,593,942
1921	975,745	1,068,295	578,860	696,691	337,252,080
1920	960,737	1,072,319	591,063	703,634	335,526,561
1919	934,918	1,078,635	596,182	706,429	324,758,685
1918	985,384	1,147,809	658,902	775,634	348,664,700
1917	1,073,943	1,249,588	728,847	857,902	381,017,338

APPENDIX 14

BOSTON ELEVATED RAILWAY
YEARLY AVERAGES



REVENUE PASSENGERS PER CAR AND BUS MILE

WEEKLY PAY DOLLARS

NUMBER OF EMPLOYEES ON WEEKLY PAYROLL

APPENDIX 15

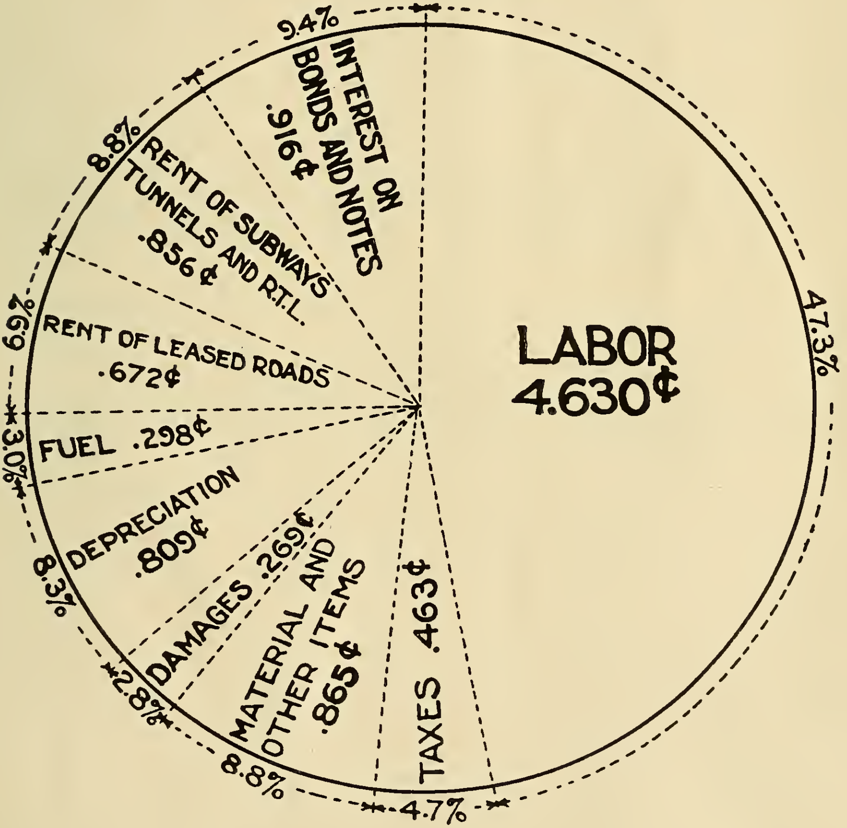
BOSTON ELEVATED RAILWAY
ALLOCATION OF COST OF SERVICE PER PASSENGER

12 MONTHS ENDED DEC. 31, 1931

AVERAGE RECEIPTS PER REVENUE PASSENGER 9.192¢

COST OF SERVICE 9.778¢ PER REVENUE PASSENGER

DIVIDED AS FOLLOWS



APPENDIX 16

PER CENT OF MAINTENANCE AND DEPRECIATION TO TOTAL INCOME

Year Ended	Total Income	Maintenance and Depreciation	Per Cent
December 31, 1931	$29,855,107.30	$7,903,344.74	26.47
December 31, 1930	32,510,721.17	8,311,029.03	25.56
December 31, 1929	34,096,623.03	8,284,093.66	24.29
December 31, 1928	34,843,147.51	8,595,987.73	24.67
December 31, 1927	35,193,410.03	8,639,138.59	24.55
December 31, 1926	35,481,313.38	8,977,312.93	25.30
December 31, 1925	34,547,379.61	8,381,452.23	24.26
December 31, 1924	34,175,372.73	8,694,550.21	25.44
December 31, 1923	34,096,813.26	7,977,110.77	23.40
December 31, 1922	32,699,176.37	7,524,999.83	23.01
December 31, 1921	33,277,025.53	7,777,505.22	23.37
December 31, 1920	34,031,636.44	8,078,269.69	23.74
December 31, 1919	29,498,582.82	8,650,266.57	29.32

Total income includes, in addition to car fares collected, receipts from advertising privileges, news stands and station privileges, rentals and income from various miscellaneous sources.

APPENDIX 17

COMPARATIVE POWER STATISTICS

	1931	1930	1929	1928	1927	1926	1925
Tons of coal burned	172,078	189,894	201,235	204,620	209,815	230,759	217,414
Pounds of coal per kilowatt hour	1.676	1.764	1.826	1.816	1.932	2.011	1.973
Average price of coal per long ton (at boilers)	$4.52	$4.60	$4.79	$4.93	$4.91	$4.98	$5.22
Net cost of power for car service per kilowatt hour (cents)	0.863	0.934	0.921	0.928	0.987	0.982	1.021
Net cost of power per total revenue car mile (cents)	4.052	4.303	4.219	4.134	4.307	4.401	4.428
Direct current annual output (k. w.)	230,467,400	241,729,260	247,473,090	252,346,905	243,290,850	257,045,625	246,835,300

APPENDIX 18

DISTRIBUTION OF TAX PAYMENTS IN 1931

	Real Estate and Personal Property Taxes	Corporate Franchise Tax	Excise Taxes	Federal Income Tax	Total Taxes Paid
Arlington	$11,027.68	$1,563.62	——	——	$12,591.30
Belmont	170.64	758.99	$15.41	——	945.04
Boston	775,391.40	49,920.23	17,785.40	——	843,097.03
Brookline	7,341.96	3,260.95	——	——	10,602.91
Cambridge	76,729.26	7,665.67	53.69	——	84,448.62
Chelsea	1,503.80	646.48	——	——	2,150.28
Everett	97,790.32	3,102.79	5.85	——	100,898.96
Malden	4,226.20	2,272.88	——	——	6,499.08
Medford	9,404.78	2,324.24	2,982.01	——	14,711.03
Milton	——	480.18	——	——	480.18
Newton	638.40	461.43	3.51	——	1,103.34
Quincy	——	——	11.70	——	11.70
Somerville	31,634.28	5,135.18	11,757.01	——	48,526.47
Stoneham	——	——	6.44	——	6.44
Waltham	——	——	5.85	——	5.85
Watertown	5,557.80	1,966.35	23.15	——	7,547.30
Commonwealth of Massachusetts	——	1,964.72	——	——	1,964.72
United States of America . .	——	——	——	$420,178.55	420,178.55
Total Taxes Paid in 1931 .	$1,021,416.52	$81,523.71	$32,650.02	$420,178.55	$1,555,768.80

APPENDIX 19

PASSENGER CARS AND BUSES OWNED

Surface Cars

	1931	1930	1918
Semi-convertible cars—Type No. 1—No. 4A3	267	348	453
Semi-convertible cars—Type No. 5	471	471	—
Center entrance cars	396	396	100
Trailer cars	220	220	174
One-man cars (Birney Type)	—	—	1
Articulated cars (40′ and 50′ type)	—	—	177
Box cars	—	—	1,113
Open cars	—	—	1,354
Total Surface Cars	1,354	1,435	3,372

Rapid Transit Cars

Elevated cars, wood and steel	—	—	169
Elevated cars, steel	325	325	162
Cambridge-Dorchester Tunnel cars, steel	155	155	60
East Boston Tunnel cars, steel	48	48	—
Total Rapid Transit Cars	528	528	391

Motor Buses

Mechanical Drive			
25 Passenger buses	66	95	
29 Passenger buses	125	125	
31 Passenger buses	1	1	
33 Passenger buses	1	1	
37 Passenger buses	12	12	
38 Passenger buses	1	1	
39 Passenger buses	41	32	
40 Passenger buses	83	48	
Total Mechanical Drive	330	315	
Gas Electric			
29 Passenger buses	2	3	
35 Passenger buses	15	15	
36 Passenger buses	16	16	
37 Passenger buses	15	15	
Total Gas Electric	48	49	
Total Motor Buses	*378	364	
Total Passenger Cars and Buses Owned	2,260	2,327	3,763

*In addition the Boston Elevated Railway on December 31, 1931, operated one leased 44 passenger bus.

E. L. Grimes Printing Co., Boston

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